ORACLE
INSURANCE

Oracle Insurance

Product Configuration Installation Guide

WebLogic

Release 1.0

October 2014

Oracle Insurance Product Configuration Installation Guide

Release 1.0

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PREFACE

Welcome to the *Oracle Insurance Product Configuration Installation Guide, WebLogic*. Oracle Insurance Product Configuration (PC) is a Web-based insurance product modeling solution that centralizes product data and validation rule definitions and provides a single product schema reference for integrated external systems.

This guide is for new installations and lists requirements and instructions for installing PC and associated databases utilizing Oracle WebLogic Application Server (WebLogic). If you have questions or experience an issue with the installation, please contact My Oracle Support for assistance.

Audience

This guide is intended for system administrators, installers, database administrators and others tasked with installing and configuring the Oracle Insurance Product Configuration (PC) and associated databases.

Oracle Software Delivery Cloud

Prior to installation, please make sure the source machine(s) where Oracle Insurance Product Configuration will be loaded has an unzip utility. An unzip utility for most platforms is available on the Oracle Software Delivery Cloud download page.

Documentation from Oracle Software Delivery Cloud is in PDF format. Prior to installation, please make sure the source machine(s) where Oracle Insurance Product Configuration documentation will be loaded has a PDF reader.

Files are downloaded with part numbers as file names. Please make note of the part numbers you have downloaded and the corresponding file name. You may be asked to provide the part numbers or the filename if you contact My Oracle Support.

Related Documents

For more information, refer to the following Oracle resources:

- The Oracle Insurance web site:

  http://www.oracle.com/industries/insurance/index.html

- If you need assistance with an Oracle Insurance Product Configuration, please log a Service Request using My Oracle Support at:

  https://support.oracle.com/

CHECKLIST OF REQUIREMENTS AND PROCEDURES

The following checklist can be used to help in a **NEW** installation of OIDC utilizing WebLogic.

- ❑ **Oracle database requirements**
  - ❑ Proper Network Connection to Database Server
  - ❑ Oracle Database 12c Release 2 (12.1.0.2). The suggested Table Space storage requirement is 1 Gig

- ❑ **PC requirements**
  - ❑ WebLogic 12c release 12.1.2.0.0 non-root user
  - ❑
  - ❑ ADF 12c (12.1.2)
  - ❑ JSF 2.0 (Coincides with 1.2)
  - ❑ Java Runtime 1.7

Installation Procedures

❑	**Create Oracle Database Schemas**	**Chapter 2**
❑	**Configuring WebLogic**	**Chapter 4**
❑	PC Groups and Users	
❑	**Deploying Applications to WebLogic**	**Chapter 6**
❑	Create a WebLogic OIDC domain	
❑	Deploy PC	
❑	**Launch URLs**	**Chapter 7**

OVERVIEW

OIDC on a WebLogic platform is composed of three components that are typically installed on separate machines:

- Product Configuration (PC) utilizing an Oracle 12c database.

Deployment Architecture

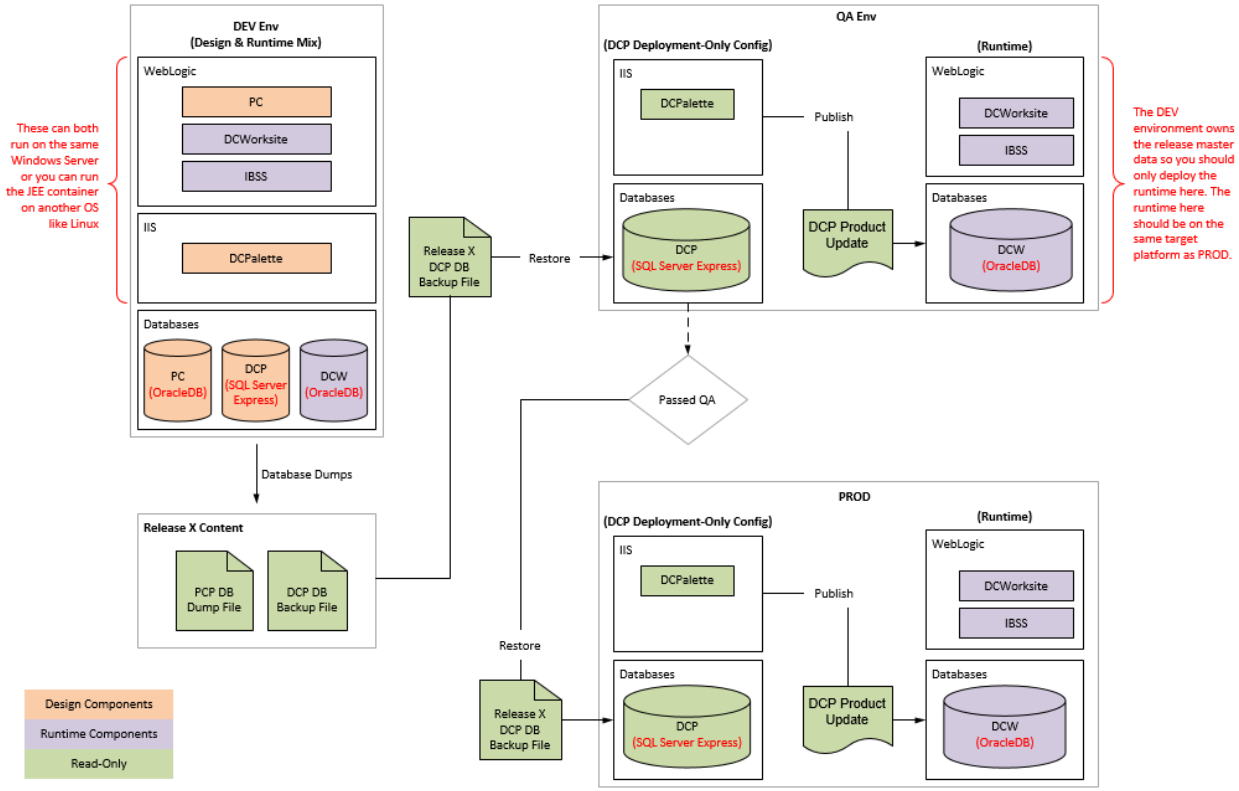


Figure 1 Deployment Architecture

It is recommended that the databases be on separate machines from the applications due to performance and security issues. The PC database can be a tenant in a larger setup.

DOWNLOAD AND INSTALLATION FILES

The download from the Oracle Software Delivery Cloud contains:

- 01.00.00-oipc.zip – Contains the PC folder which holds the .EAR file for the PC application and the Oracle database for new installs.
- 01.00.00-oipc-doc.zip – Contains the Documentation folder which holds the installation, user guides, and release notes for the applications

Chapter 2

ORACLE DATABASE SCHEMAS

This guide is for new installations where no PC schemas are present.

IMPORTANT: ***It is strongly recommended that any database modification be performed by a qualified database administrator (DBA). The database setup procedures and tasks require the skill set of a database administrator. If you are not a database administrator, please stop. Improper setup may result in unwelcome changes to the database. Please consult with a qualified database administrator before proceeding***.

The database installer should have administrator rights on the machine where the database schemas will be created.

NEW SCHEMA INSTALLATION

Create the databases in accordance with your company's standards. Your entries may differ from the examples given.

Do not run these scripts on an existing database.

Create Schema Owners (Database Users)

A new PC installation begins with creating an Oracle database schema. You will need to create schema owners (database users) for the PC schemas.

1. Create the Oracle Database users. For example: PC_10_PRODCONFIG
2. Grant the necessary privileges and quotas to the new users just created.

Create PC Tables

1. Locate the PC_10_NEW.sql file from the installation download.
2. The script must be run under the schema owner.
3. Log in as the PC schema owner.
4. Apply the script to create the database tables.

Chapter 3

PC REQUIREMENTS

The following configuration assumes that the administrator of the server is generally familiar with managing WebLogic and the server where WebLogic resides. PC requires:

- ADF Runtime 12c (12.1.2)
- A PC domain in WebLogic
- An Oracle 12c database – schema name, location and password, for PC and Worksite
- In a Windows environment, you will need 7-zip or win-zip to extract the .EAR files.

PC requires a separate domain in WebLogic. WebLogic should not be installed as root. Root will not allow for access to the ADF Runtime required by PC. If WebLogic has been installed as root, you will need to allow for ADF Runtime access or you can uninstall WebLogic and then reinstall as a non-root user, for example as the PC installer.

ADF Requirements

Prior to creating any domains, verify that ADF Runtime 12c is installed. If you need to run ADF Runtime, please have this information ready prior to installing.

NOTE: *If the WebLogic Server option is not available during the ADF install, check that you have a compatible version of WebLogic installed. You may need to upgrade your WebLogic.*

High Level ADF Instructions

1. Verify a complete WebLogic 12c install.
2. Install the 12.1.2 Oracle Fusion Middleware. The Oracle installation guide for installing the 12.1.2. Oracle Fusion Middleware is available at:
3. http://docs.oracle.com/middleware/1212/core/INFIN/install_gui.htm

ADF Runtime Download Location

ADF Runtime needs to be installed prior to creating any domain. You can download ADF Runtime from: http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html.

The Oracle installation guide for installing the 12.1.2 Application Developer Runtime can be found at: http://docs.oracle.com/middleware/1212/core/INFIN/index.html

My Oracle Account

The ADF installer may require that an update be run during the install. If you would like to run any updates, please have your *My Oracle* account information ready. You can get an account at:

https://support.oracle.com/CSP/ui/flash.html

A Location for JRE/JDK

The installer requires the full path to the location of a Java Runtime Environment (JRE) on your system. If you do not use this location during the ADF install you may have to specify the JRE/JDK location for WebLogic, for example:

```
C:\Oracle\Middleware\jrockit_160_29_D1.2.0-10\jre
or
/root/jrockit-jdk1.6.0_24_D1.1.2-4.0.1/jre
```

Verifying JSF Libraries in WebLogic

Prior to installing any application .EAR file, please verify that there are two JSF libraries in WebLogic.

On the deployment page, scroll down to find:

- jsf(1.2,1.2.9.0)
- jsf(2.1,2.1.7-01-)

Name	State	Health	Type	Targets	Deployment Order
adf.oracle.businesseditor(1.0,12.1.2.0.0)	Active		Library	AdminServer	100
adf.oracle.domain(1.0,12.1.2.0.0)	Active		Library	AdminServer	100
adf.oracle.domain.webapp(1.0,12.1.2.0.0)	Active		Library	AdminServer	100
coherence-transaction-rar	Active	OK	Resource Adapter	AdminServer	100
DCW_WLS	Active	OK	Enterprise Application	AdminServer	100
DMS Application (11.1.1.1.0)	Active	OK	Web Application	AdminServer	5
jsf(1.2,1.2.9.0)	Active		Library	AdminServer	100
jsf(2.1,2.1.7-01-)	Active		Library	AdminServer	100
jstl(1.2,1.2.0.1)	Active		Library	AdminServer	100
odl.clickhistory(1.0,12.1.2)	Active		Library	AdminServer	100

Figure 2 JSF Verification

jsf(1.2,1.2.9.0) can be found at:

WINDOWS: Oracle\Middleware\wlserver_12.1\common\deployable-libraries\jsf-1.2.war

or

LINUX: /Oracle/Middleware/wlserver_12.1/common/deployable-libraries/jsf-1.2.war

jsf(2.1,2.1.7-01-) can be found at:

WINDOWS: Oracle\Middleware\oracle_common\modules\oracle.jsf_2.0\jsf-ri-20.war

or

LINUX: /Oracle/Middleware/oracle_common/modules/oracle.jsf_2.0/jsf-ri-20.war

If a library is missing, please deploy as a library before deploying any application .EAR files.

A missing library may result in errors when deploying the PC or Worksite .EAR files.

Chapter 4

CONFIGURING WEBLOGIC

After setting the ADF environment need to modify WebLogic startup file to set app directory path.

WEBLOGIC STARTUP OPTIONS

The startup script needs to have two commands added; one to set the location where the oidc_config.xml and PC_config.xml file will be created and maintained and one for the proper functioning of callout adapters.

1. Locate the startup script for the OIDC domain on the server where WebLogic is installed:

   This script can be found at:

   [%MW_HOME%]\user_projects\domains\[%PC_DOMAIN]\bin\,

   Where: %MW_HOME% is the Fusion Middleware home where WebLogic is installed

   And: %PC_DOMAIN% is the name of the domain where PC is deployed.

   For example:

   C:\Oracle\Middleware\user_projects\domains**[PC_DOMAIN]**\bin\startWebLogic.cmd

   Or

   Oracle/Middleware/user_projects/domains/**[PC_DOMAIN]/**bin/startWeblogic.sh

   Where: [PC_DOMAIN] is the name used for the PC Domain

2. Make a copy of the script and give it a name of your choosing.

NOTE: *Startup scripts are generated by the WebLogic configuration wizard and changes will be overwritten if you later extend the domain, so make modifications to the renamed new copy.*

3. To edit the script, open the start file in a text editor.

4. Near the end of the script, find the server startup commands. Right before these calls, add the following Java properties to %JAVA_OPTIONS%:

   set JAVA_OPTIONS=%JAVA_OPTIONS% **-Doracle.insurance.pc.appDirectory="***C:\Oracle\Insurance\DC\PC***"**

   set JAVA_OPTIONS=%JAVA_OPTIONS% **-Dweblogic.wsee.workarea.skipWorkAreaHeader=true**

Where:*C:\Oracle\Insurance\DC\PC* is the location where PC has been installed.

```
echo *  server administration, use the WebLogic Server *

echo *  console at http:\\hostname:port\console       *

echo ***************************************************

@REM CLASS CACHING

if "%CLASS_CACHE%"=="true" (
    CALL :classCaching
)

@REM START WEBLOGIC

echo starting weblogic with Java version:

%JAVA_HOME%\bin\java %JAVA_VM% -version

@REM Set the OIDC application directory
set JAVA_OPTIONS=%JAVA_OPTIONS% -Doracle.insurance.dc.appDirectory=C:\Oracle\Insurance\DC\DCW
@REM Set the PCP application directory
set JAVA_OPTIONS=%JAVA_OPTIONS% -Doracle.insurance.pc.appDirectory=C:\Oracle\Insurance\DC\PC

@REM Disable WorkArea header transmission
set JAVA_OPTIONS=%JAVA_OPTIONS% -Dweblogic.wsee.workarea.skipWorkAreaHeader=true

if "%WLS_REDIRECT_LOG%"=="" (
    echo Starting WLS with line:
    echo %JAVA_HOME%\bin\java %JAVA_VM% %MEM_ARGS% -Dweblogic.Name=%SERVER_NAME% -Djava.security.policy=%WLS_POLICY_FILE% %
    %JAVA_HOME%\bin\java %JAVA_VM% %MEM_ARGS% -Dweblogic.Name=%SERVER_NAME% -Djava.security.policy=%WLS_POLICY_FILE% %JAVA_
) else (
    echo Redirecting output from WLS window to %WLS_REDIRECT_LOG%
    %JAVA_HOME%\bin\java %JAVA_VM% %MEM_ARGS% -Dweblogic.Name=%SERVER_NAME% -Djava.security.policy=%WLS_POLICY_FILE% %JAVA_
```

Figure 3 Updating the startWebLogic Script

5. When you are finished with your edits, save the file.

If you are running PC on a managed server, you would make similar modifications to startManagedWeblogic.cmd (or startManagedWeblogic.sh), again making your own copy of the provided script.

You could set both properties together on one line, or add them individually to the startup instructions, or set them in setDomainEnv.cmd (or setDomainEnv.sh, for Linux), which is called by setWebLogic.cmd (or startWebLogic.sh). It doesn't matter where, as long as these settings are passed at startup.

CONFIGURING DATA SOURCE IN WEBLOGIC APP SERVER

1. Log in to WebLogic Console and select Services-> Data Sources in Domain Structure panel. Click New and select the Generic Data Source option.

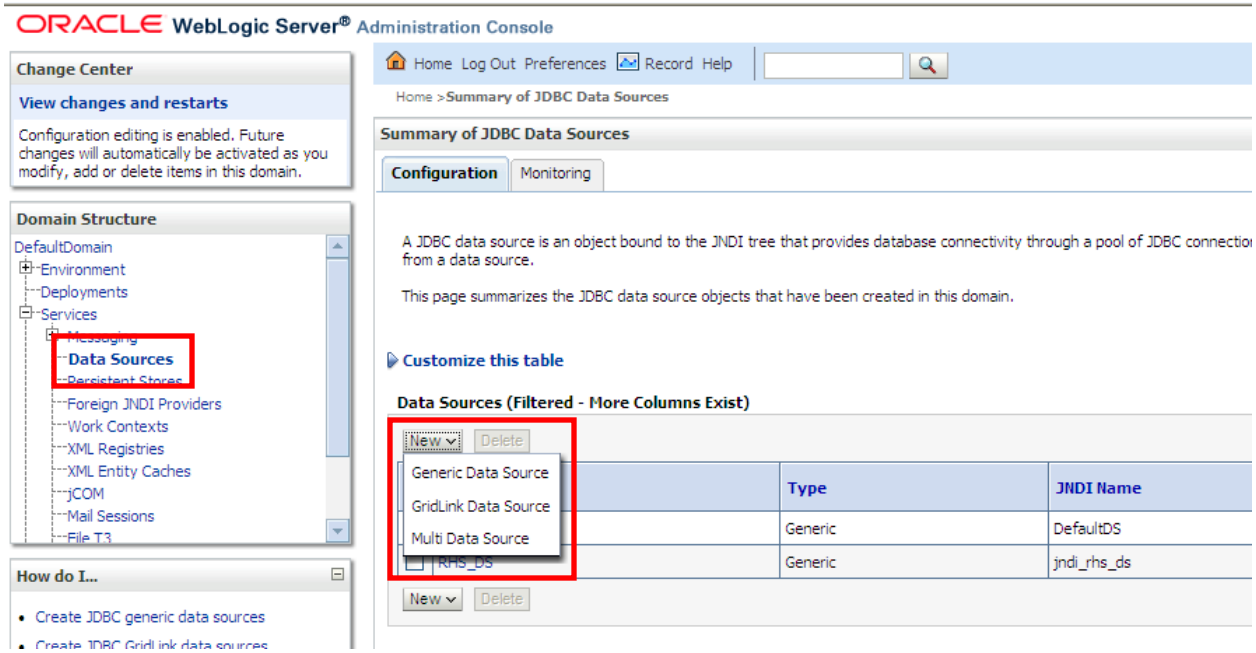


Figure 4 Selecting Data Sources

2. Enter the data source name and JNDI Name:
    a. Data Source Name: PC_DS
    b. JNDI Name: jdbc/PCPDS
3. Click Next.

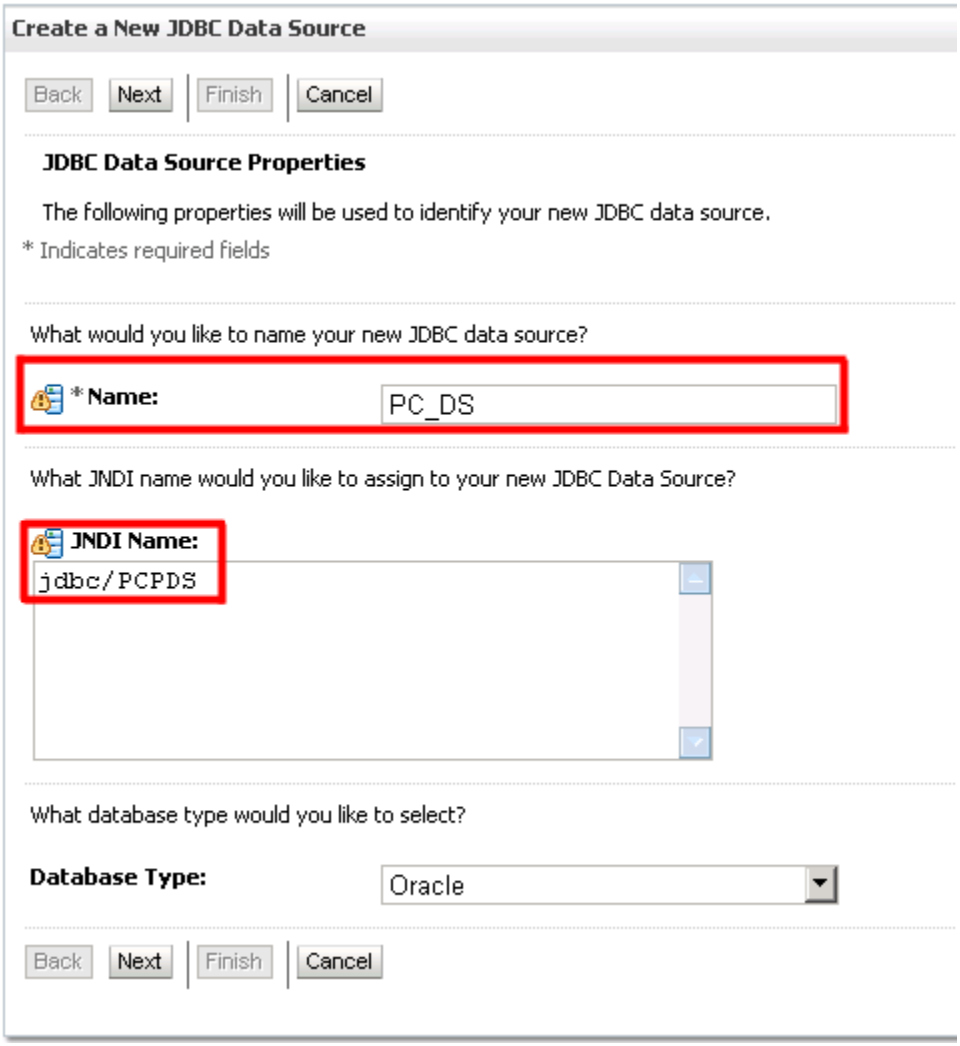


Figure 5 Creating a New JDBC Data Source

The data source name can be any name you choose.

The JNDI name in the WebLogic data source must match the setting in the 'non-jta-data-source' section of the persistence.xml. Uniform naming reduces errors because the same name must be defined in multiple places in Worksite and allows for multiple instances to be installed on the same server.

Please only use this JNDI Name:

- jdbc/PCPDS – for PC

4. Select the appropriate JDBC Driver from the options available.

5. Click Next.

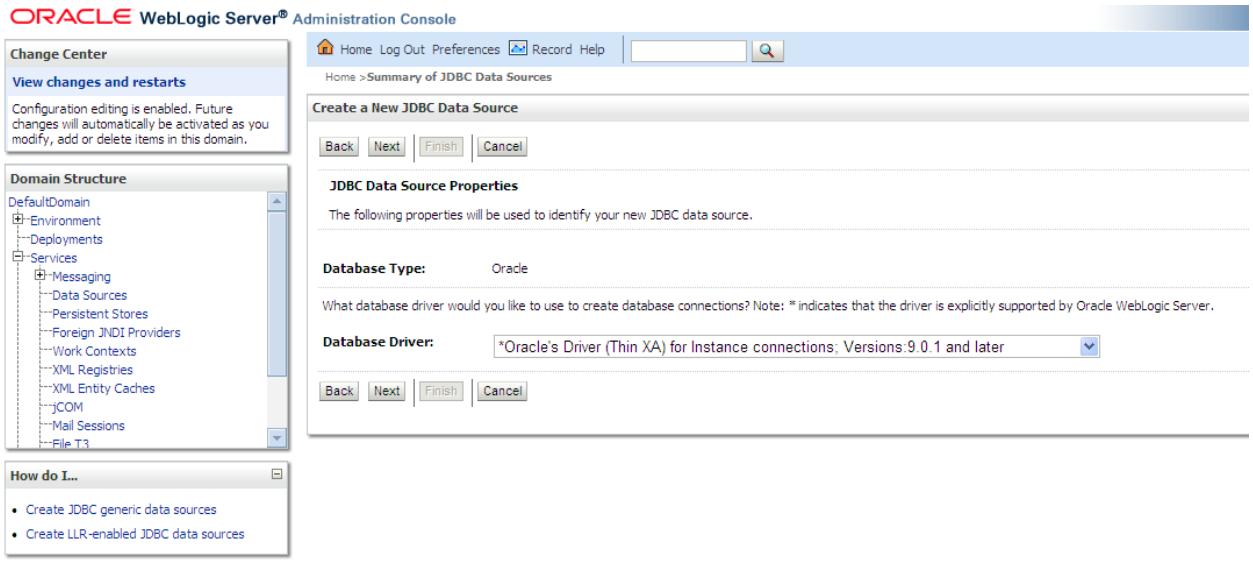


Figure 6 Selecting the JDBC Driver

6. No changes are needed on the next screen. Click Next.

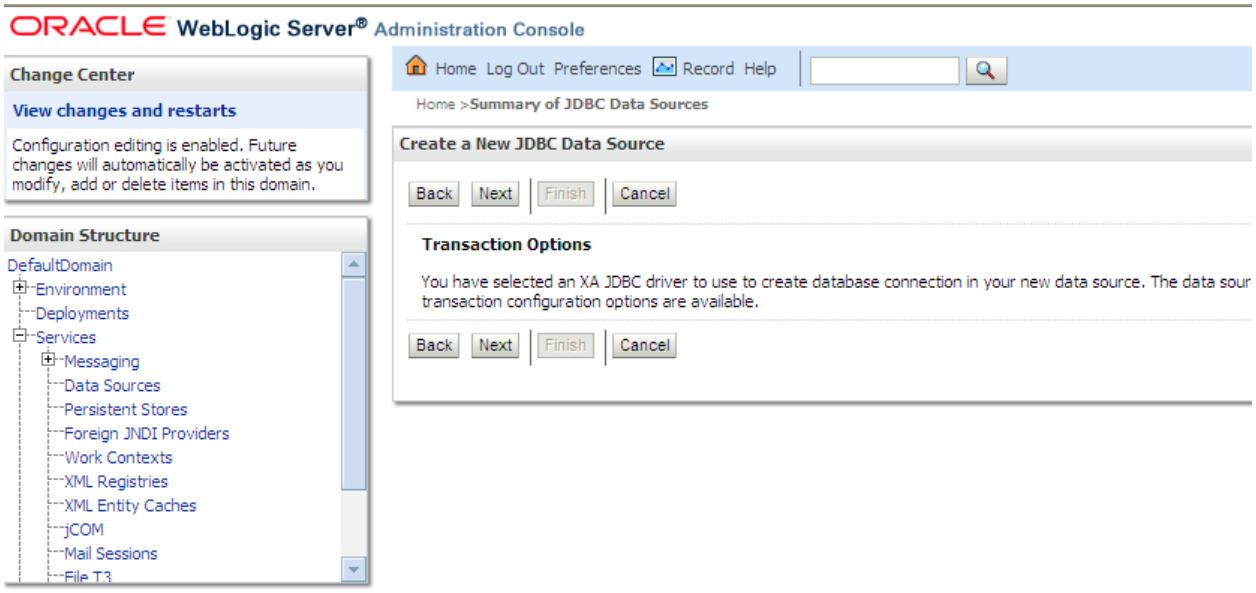


Figure 7 Creating a New JDBC Data Source

7. Enter the Database details. You will need the database name, server name, port, database user and password.

8. Click Next.

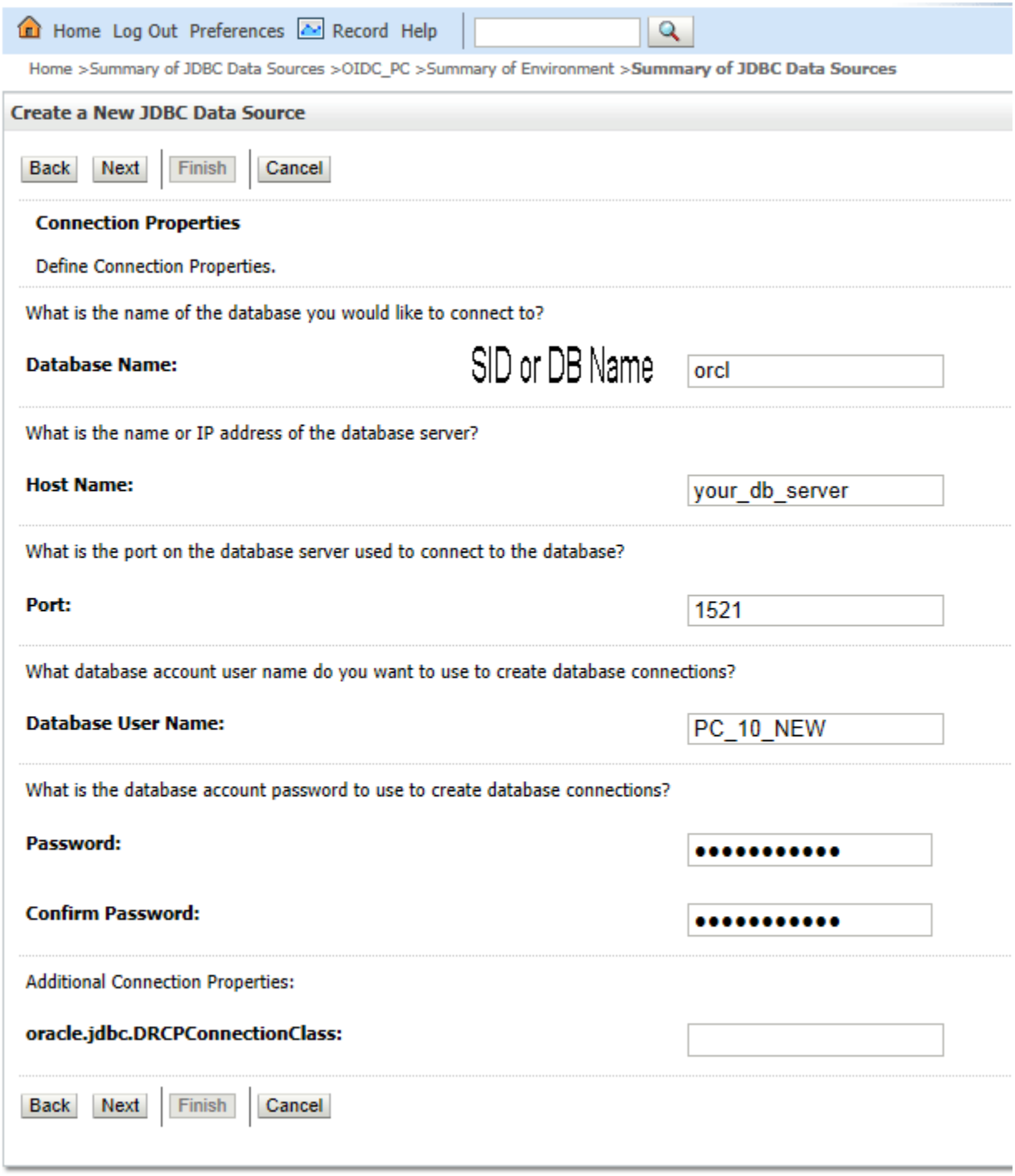


Figure 8 Entering Database Details

9. Click on Test Configuration to validate the Database details. A successful connection displays a “success” message. If a fail message is displayed, please verify your entry and try again.

10. Click Next.

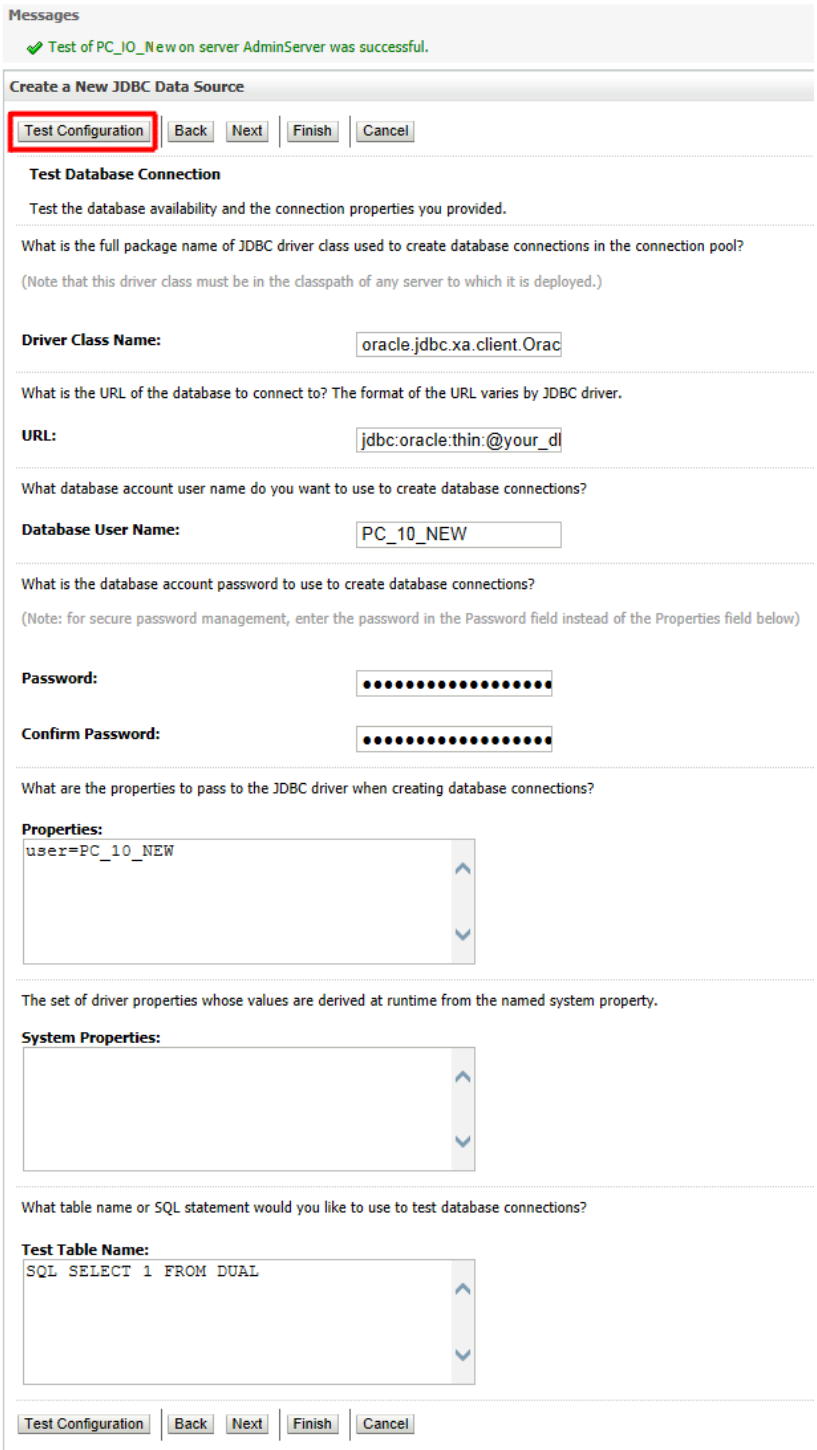


Figure 9 Testing Configuration

11. Select the target server and click Finish. A successful creation displays a “success” message. If there are any errors, please correct and try again.

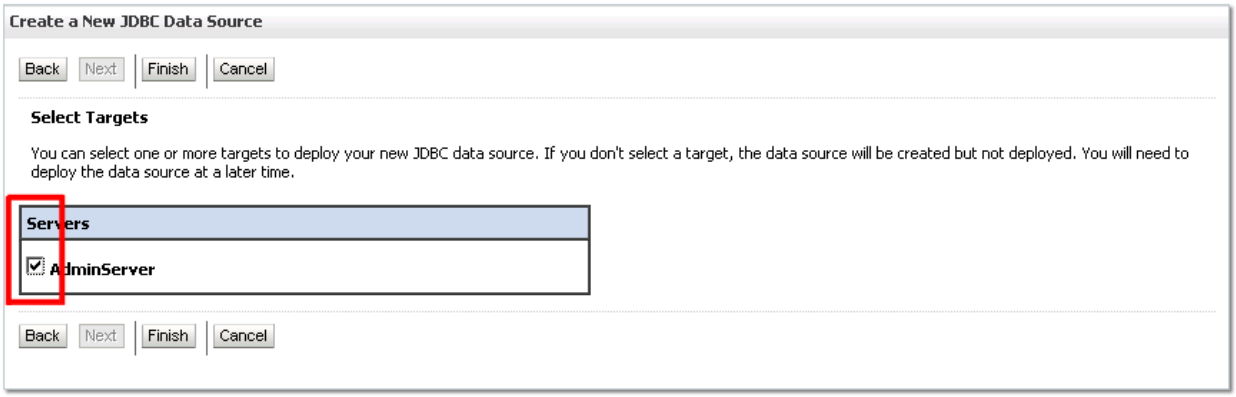


Figure 10 Selecting the Target Server

SECURITY SETTINGS

OIDC implements security by Users and Groups. It has a predefined security group hierarchy for each of the applications. The “BASE” security group will have “ROLES” and “TEAMS” as its sub-groups. The “TEAMS” security group represents a business organization that users belong who would be expected to be able to see and share data that its members have created in OIDC. Any team created for OIDC must be a part of its “TEAMS” group. The “ROLES” security group represents the supported application roles. Currently we have only one security group under “ROLES” as we support only one role. A user must belong to a TEAM and must have at least one role.

PC: The Security Groups, Teams and Roles for PC are described as under.

- **PCBASE**_ This is a security group that serves as the root level for all other groups.
- **PCROLES**_ This is a security group that will hold the available roles. PCROLES_ is a member of PCBASE_.
- **PCTEAMS**_ This is a security group that will hold the OIDC teams. PCTEAMS_ is a member of PCBASE_.
- **PCDataAdministrators**_ This is a security group for Product Configuration Administrators. PCDataAdministrators_ is a member of PCROLES_. If a user requires admin role, the user must be a member of this group. The admin user also has view, create, edit and delete rights.
- **MyPCTeam -** This represents a team in your organization. This team can be any name you choose. You can create additional teams and team hierarchies if you wish.

The security hierarchy can be created either in WebLogic server or in LDAP server.

CREATING USERS AND GROUPS IN WEBLOGIC

1. Log in to the WebLogic Admin Console and click on Security Realms.

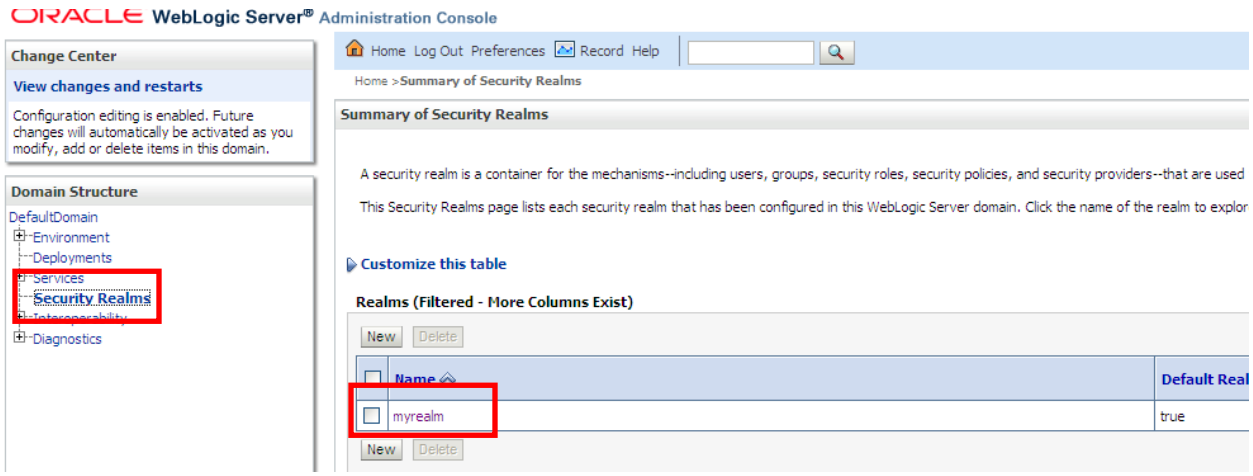


Figure 11 Security Realms in WebLogic

2. Click myrealm.

3. Click on Users and Groups.

4. Select the Groups tab.

5. Click New to create a new Security Group.

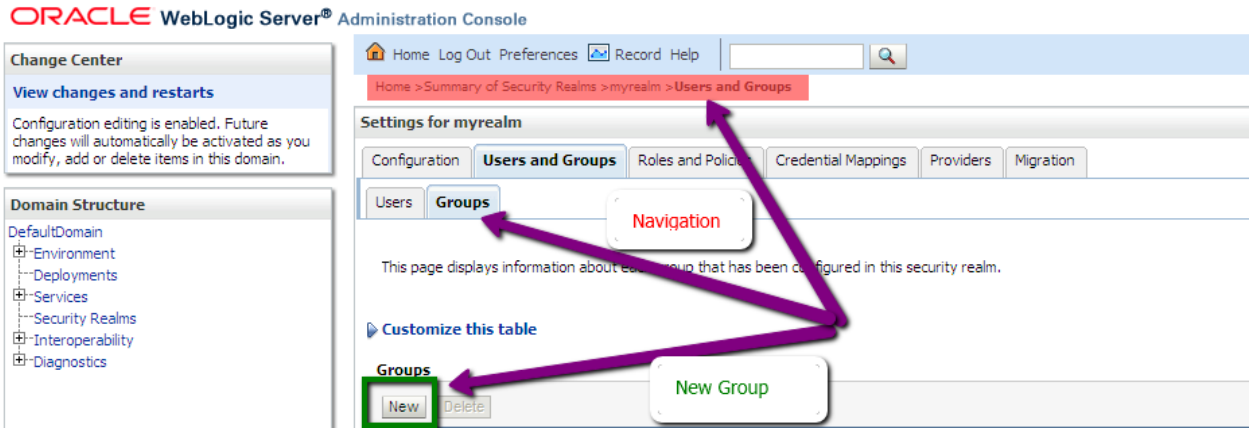


Figure 12 Creating Groups in WebLogic

6. There are 5 groups that need to be created. For each group, enter the Name and Description of the new group and click OK. The description can be the same as the name.
   - PCBASE_
   - PCTEAMS_

- PCROLES_
- PCDataAdministrators_
- MyPCTeam

NOTE: *Do not change the provider.*

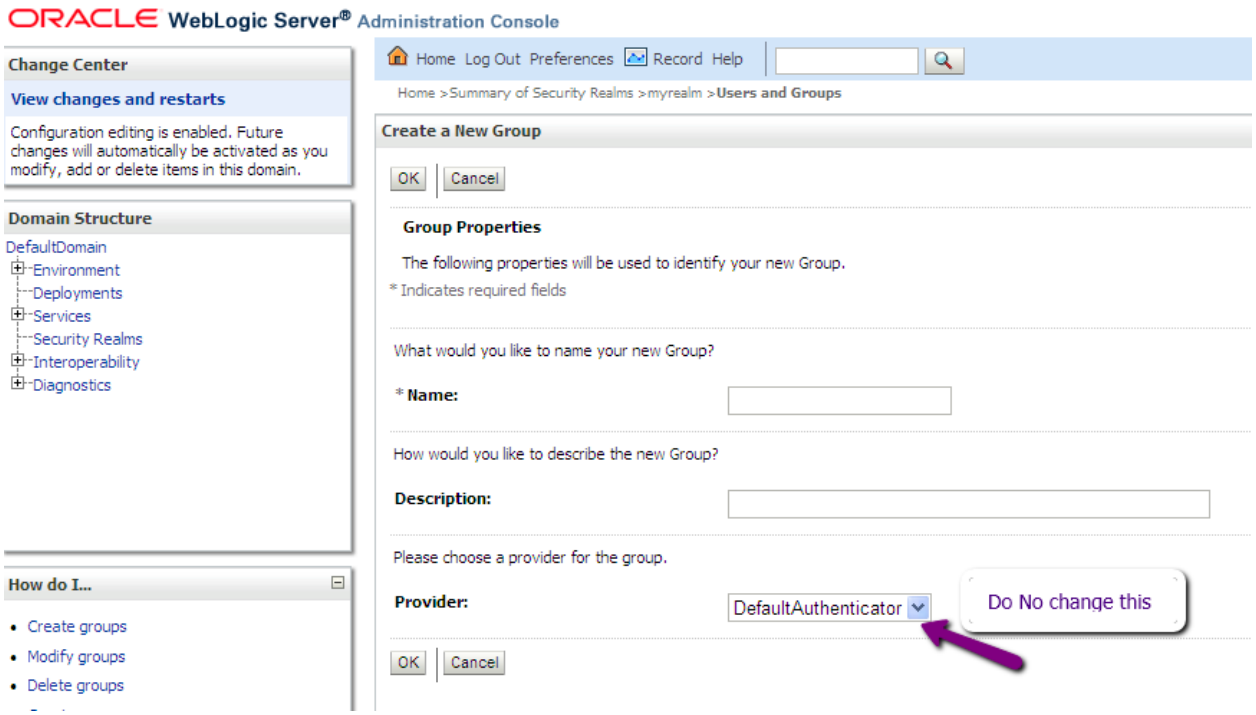


Figure 13 Entering Group Information in WebLogic

Groups, Teams, and Roles

Groups, teams, and roles are all created the same way. The relationship between them is defined in the membership tab. The relationship structure is:

Groups
    Teams
    Roles

- **PCBASE**_ This is a security group that serves as the root level for all other groups.
- **PCROLES**_ This is a security group that will hold the supported security groups each of which representing a role. PCROLES_ is a member of PCBASE_.
- **PCTEAMS**_ This is a security group that will hold the OIDC teams. PCTEAMS_ is a member of PCBASE_.
- **PCDataAdministrators**_ This is a security group for Product Configuration Administrators. PCDataAdministrators is a member of PCROLES_. If a user requires admin role, the user must be a member of this group. The admin user also has view, create, edit and delete rights.

- **MyPCTeam -** This represents a team in your organization. This team can be any name you choose. You can create additional teams and team hierarchies if you wish.

7. Verify all the Groups have been created.

8. Click on the PCBASE_ group and select the Membership tab.

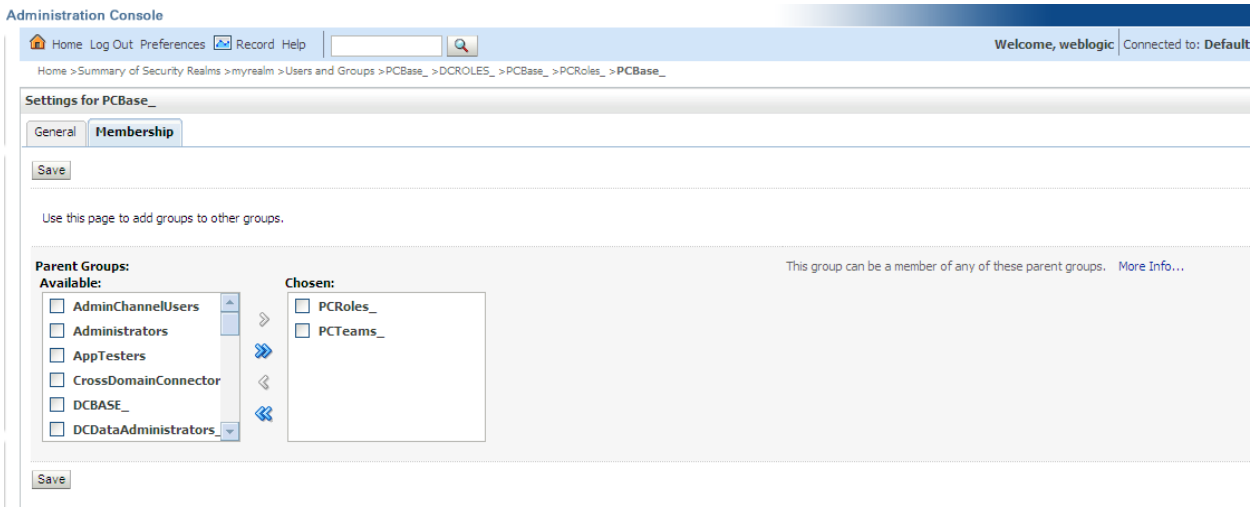


Figure 14 Selecting Membership for PCBase

9. Select PCTEAMS_ and PCROLES_ from the Parent Groups Available, located on the left to Chosen, on the right. This makes the PCTeams_ and PCRoles_ groups members of the PCBase_ group.

10. Click Save.

11. Return to the Users and Groups page (you can navigate using the locater links at the top of the screen). Select the PCROLES_ group and select the Membership tab.

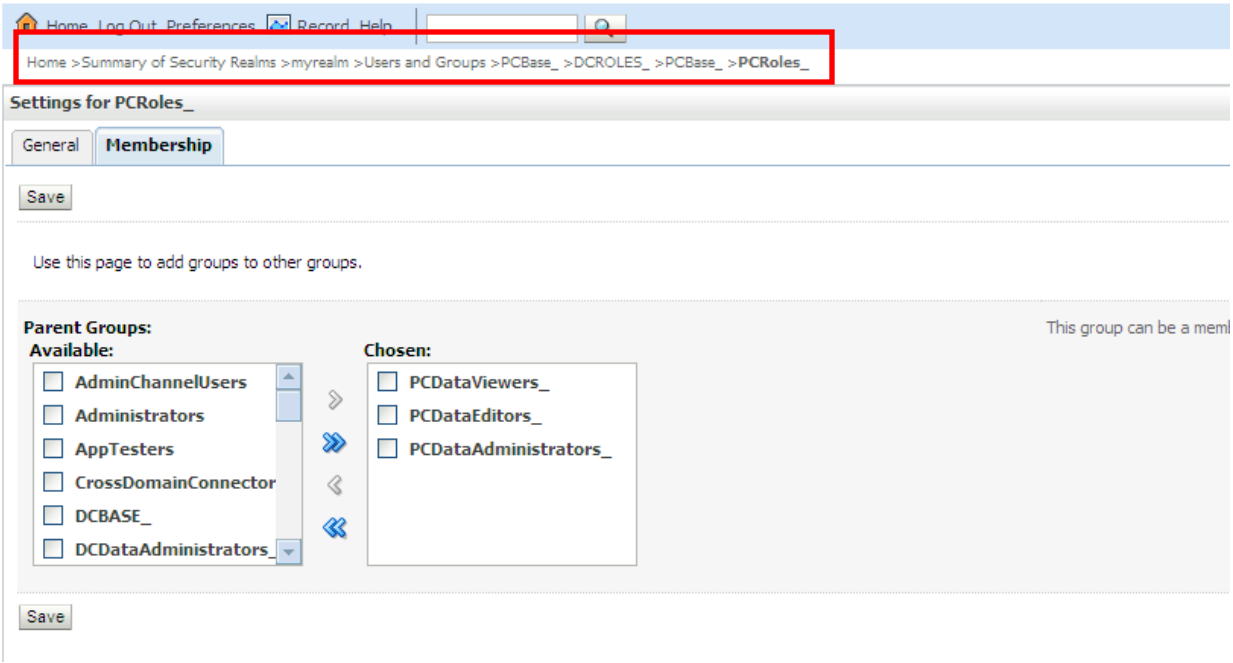


Figure 15 Selecting Members for the PCRoles Group

12. Move PCDataAdministrators_ from Parent groups Available to Chosen. This makes the PCDataAdministrators_ group a member of the PCROLES_ group. Click Save.

13. Return to the Users and Groups page (you can navigate using the locater links at the top of the screen). Select the PCTEAMS_ group and select the Membership tab.

14. Move the MyPCTeam team from Available to Chosen. This makes MyPCTeam a member of the PCTEAMS_ group.

15. Click Save.

NOTE: *Any new Team created should be added to PCTEAMS_ to interact with PC.*

Creating Users in the WebLogic Console

Users must be a member of a team and have a role assigned.

16. Return to Users and Groups and click on the Users tab.

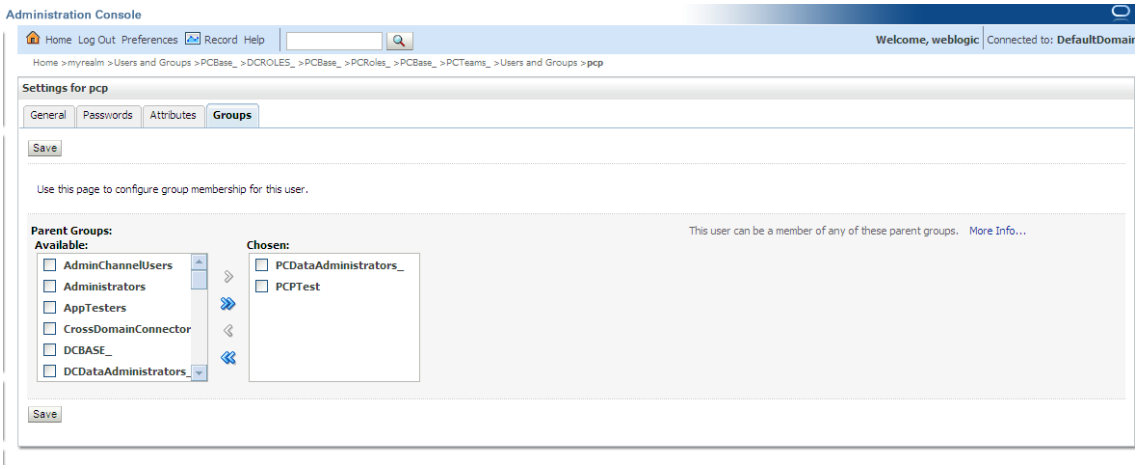


Figure 16 Creating Users for PC

17. Click New to create user PC, for example.

NOTE: *Make note of the password. This information needs to be passed on to the user.*

18. Select the PC user. This opens the edit screen.
19. Select the groups tab. This allows you to select the teams and roles this user will belong to.
20. Select two: **PCDataAdministrators_*** and **MyPCTeam.** Move them from Available to Chosen. This makes the PC user a member of the MyPCTeam team and assigns PC the role of admin.

NOTE: * *Currently, Product Configuration only supports the PCDataAdministrators_ role.*

21. Clic**k Save.**

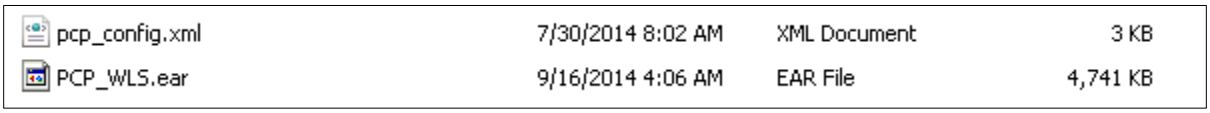
PCP CONFIG XML FILES

With the PC 1.0 release, a user-maintainable configuration files, “pcp_config.xml” are being used. The purpose of these files are to provide a place outside the application hierarchy (open directory or EAR) where settings for active skin, application title, callout environments, etc. can be maintained and not overwritten when the application is redeployed.

A template PC configuration file called “tmpl_wls_pcp_config.xml” can be found in the 01.00.00-oidc-pcp.zip file. You will have to replace the place-holder server names, IP addresses, and port numbers in this file with real values needed for your deployment environment.

OVERVIEW

The new PC_config.xml file holds custom deployment configuration settings. This file exists outside of the EAR and resides as a sibling file to EAR file. This prevents subsequent deployments from overwriting the config settings.



Where does it go?

You have to place the pcp_config.xml in the location specified by “oracle.insurance.pc.appDirectory” in the WebLogic startup options. Please see WebLogic Startup Options on page 13.

For example

pcp_config.xml:

You can create a designated folder where the pcp_config.xml can be placed.

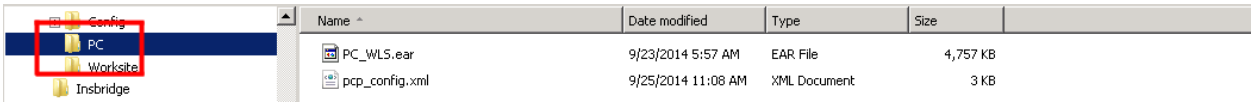


Figure 17 Location of the pcp_config.xml File

Chapter 6

DEPLOYING APPLICATIONS TO WEBLOGIC

Installation procedure:

- Create a PC domain in WebLogic – Chapter 4
- Edit the deployment files – Chapter 4
- Download and place PC file in location you can access – Chapter 5
- Deploy PC in WebLogic

Deploying in WebLogic Application Server

1. Prior to deploying, WebLogic must be started and running.
2. If the holding folder that you just edited is on a different machine, copy it to the machine where WebLogic is running.
3. Log in to the WebLogic Admin console. You can log in either remotely or on the machine where WebLogic is located. For example, http://HostName:7001/console

NOTE: *Where HostName is the name or IP of the server where WebLogic is installed.*
7001 is the most commonly used port for WebLogic. The port may have been changed when you created the OIDC domain. If WebLogic fails to display, check to make sure WebLogic has been started. If WebLogic has been started verify the host name and the port.

4. Click on the Deployments link on the left side of the screen.
5. Click Install.

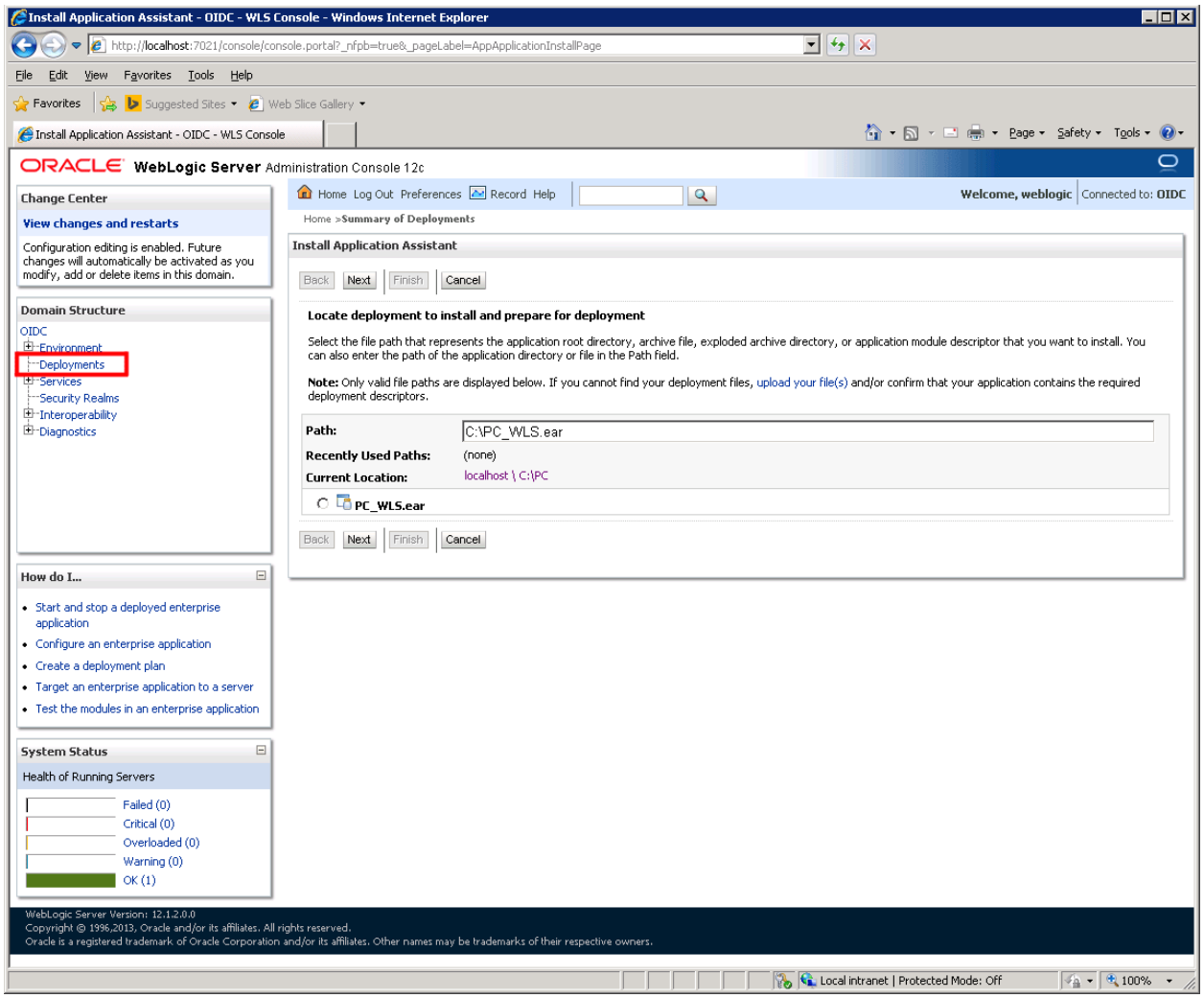


Figure 18 Selecting the PC_WLS.ear File

6. You can enter in the path of the holding folder. Or you can navigate to it by selecting the available folders in the Current Location area. When you have reached the location of the holding folder, available directories will be listed.

7. Select PC_WLS.ear. Click Next.

8. On the Install Application Assistant page, select to Install this deployment as an application. Click Next.

9. On the Optional Settings page, it is recommended that you keep the default values. You can re-name the deployment if you want. The name is for the deployment listing in WebLogic only. Click Finish.

10. After the deployment has been added, you will be placed on the Summary of Deployments page. The deployment you added will be listed. Read the messages at the top of the screen and correct any error messages.

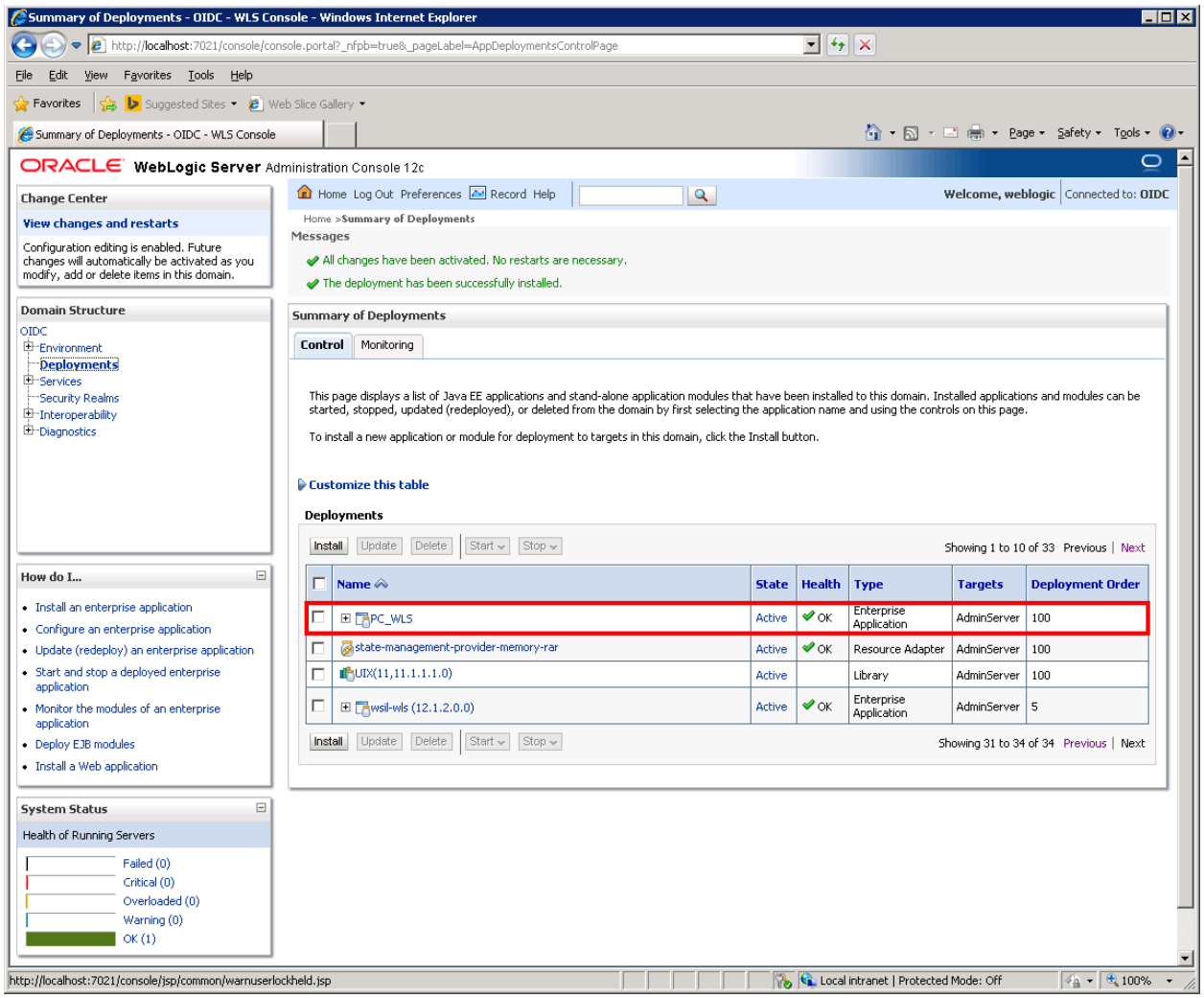


Figure 19 Completed PC Deployment

Chapter 7

LAUNCHING PC

Each of the three applications has a launch page. The launch page acts as a default home page for the application. To view and verify each application, open an Internet Explorer web browser to:

http://<*host-name* ***or*** *host-ip*>**:**<*port_number*>**/**<*context-root*>

Where:

- *host name* is the name of the server where Worksite was deployed
- *host-ip* is the IP address of the server where Worksite was deployed
- *port number* is the port used by the OIDC WebLogic domain. This is not needed for Palette.
- *context-root* is the name used by the application. There are three URL contexts for OIDC.
  - PC – PC10/faces/pcpLoginPage.jspx

NOTE: *The default context-root value may be changed. Please make note of the exact value for the context-root. Context-root is case sensitive.*

URL Examples

- Launch PC. This area holds the basic information on which a questionnaire can be created. Information created here is pushed to Palette.

  For example: http://Server:7001/PC10/faces/pcpLoginPage.jspx

The URL information should be sent to the users along with the login name and password.

CONTACTING MY ORACLE SUPPORT

If you need assistance with an Oracle Insurance Insbridge Enterprise Rating System product, please log a Service Request using My Oracle Support at https://support.oracle.com/.

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

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